ELECTRONIC PLANS PROCESS

Version Number: 04.00

Date: April 16, 2010



Georgia Department of Transportation Office of Design Policy & Support Engineering Document Management 600 W. Peachtree Street Floor 25 Atlanta, GA 30308

Revision History

DATE	DESCRIPTION OF REVISION		
5/30/06	Revised Letting process for Direct Shipping by Printing Vendor		
6/21/06	Updated Letting orders and shipping process and added re-let process		
6/28/06	Updates to "Use on Construction" Process		
7/26/06	Added detail to Aperture Scanning process		
10/26/06	Revised Letting Process for Web Hosting		
12/20/06	Added Electronic RW Plans Process		
4/13/07	Added Bridge Revision process section		
4/25/07	Revised document throughout for updates to processes (Quarterly Review)		
6/8/07	Added Project Correspondence Files Process & Pre-QA Process for		
	Document Imaging Project, along with other miscellaneous changes		
7/3/07	Added PCF folder to ProjectStore folder structure		
8/6/07	Updated Section 9 – PCF Process for final minor revisions and additions		
8/23/07	Updated Section 9 – PCF Process for final minor revisions and additions		
2/5/08	Updated Section 9 – PCF Process for final minor revisions and additions		
2/7/08	Updated Section 9 – PCF Process for final minor revisions and additions		
9/25/08	Updated DesignStore & ArchiveStore folder structures and and other related		
	diagrams throughout document, as well as added the text "ArchiveStore" in		
0.427.400	most places where "DesignStore" occurs		
9/25/08	Added Section 10 for Environmental Documents Process		
11/17/08	Major revisions to Letting, Use on Construction, & Bridge As-Built Processes		
	(Sections 2, 4, & 5)		
12/5/08	Removed Appendices due to projects being completed Added Electronic Plans Reproduction Process (Section 11)		
12/19/08	Minor updates to the Letting and Use on Construction Processes		
3/27/09	Updated Use on Construction Revision Process		
6/5/09	Revised whole document to update, revise, and add processes		
9/23/09	Updated Print Room Work Order Form to new form and added		
7/23/07	documentation on new form in Section 10		
10/22/09	Updated Section 5 (Archival Process – Flowchart, Added CSV Files, etc.) and		
, ,	Section 7 (RW Plans Process)		
11/3/09	Updated Office/Group Name throughout document as well as most		
	flowcharts and processes		
1/5/10	Added State Archives process to Section 5 / Added VE folder to folder		
structure / Removed references to DesignStore			
3/8/10	Updated ArchiveStore folder structure to include Design-Build		
	• Added Design-Build projects to Section 2 – Letting Plans Process		
	Updated Section 7 – Electronic RW Plans Process		
4/1/10	Updated standard file format from TIF to PDF (including all references)		
4/16/10	Added Pre-Approval Process to RW Plans section (Section 7)		
	Added Maintenance Projects (Section 2) and reformatted for types of Lettings		
	Renumbered sections throughout due to reformatting of Section 2		
	Added Purpose and Legality Page in front of document		

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PURPOSE

This document establishes and defines the electronic processes used in the reception, storage, printing, letting, revising, QA/QC, publishing, and archiving of all electronic plan sets, in addition to processes affecting associated project-related documents. Due to the evolving nature of the Department's electronic processes, this document is considered a "living" document.

ELECTRONIC PLANS POLICIES AND DOCUMENTATION

The basis of GDOT Electronic Plans Process is as follows:

- Commissioner's Policy 3A-16 defines the format in which all construction and right-ofway plans will be archived by the Department as electronic format.
 Available internal to GDOT at: (http://mygdot.dot.ga.gov/info/pap/Lists/Policies/DispForm.aspx?ID=489)
- 2) Records Retention Policy 0484-004 documents the retention requirements of the Highway Project Construction Plan Files..
- 3) The Electronic Plans Process document defines the processes for reception, storage, printing, letting, revising, QA/QC, publishing, and archiving of all electronic plan sets. Available at: http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/Documents/Electronic Plans Process.pdf)
- 4) Existing policies established by Information Technology documents the security applied to avoid breaches and to insure the integrity (prevention of tampering) of the documents.

SECTION 1 - GENERAL

PLANS REPOSITORIES FOLDERS

Three sets of plans comprise what is considered to be the project archival:

(1) "Bid Set":

The *Bid Set* plans are stored in the "CONSTRUCTION" folder and consist of the plan images that were advertised during the Bidding and Letting process. This set of plans remains unchanged with the exception of a "VOID" stamp being placed on the sheets that are replaced by later revisions. Any revised sheets will reside in the "REVISION" subfolder.

(2) "Right-of-Way":

The *Right-of-Way* plans are stored in the "RIGHT OF WAY" folder and consist of the final Right-of-Way plans after receiving Final Acceptance on the project, with any revisions residing in the "REVISION" sub-folder.

(3) "As Built":

The As Built plans are stored in the "AS BUILT" folder and consist of the final "marked-up" plans of changes that occurred on construction. Revisions made to Bridge Plans are considered to be "Bridge As-Builts", therefore, they are stored in the "BRIDGE" sub-folder.

NOTE: For projects that already contained Construction Revisions made prior to the scanning of the plans, all VOID sheets and Use on Construction sheets will be in the *Construction* folder, not separated into the *Revision* folder.

These plans will be stored within the structure of the plans repository as documented below. A CD/DVD archival will also exist within GDOT, as well as a separate backup at State Archives.

DIRECTORY STRUCTURE

All electronic plan files are stored, maintained, and accessed through one location on the server named "ArchiveStore"

(\\gdot.ad.local\\gdot\\Preconstruction\\RoadDesign\\ArchiveStore\\)). This location contains the electronic images of plans, while the metadata associated with the projects is stored elsewhere, but allows for searching. The folder/directory structure for ArchiveStore is shown below in Figure 1-1.

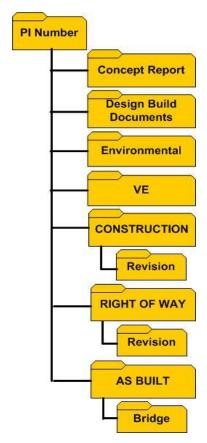


Figure 1-1 - "ArchiveStore" Folder Structure Diagram

STANDARD FILE FORMAT

The standard electronic file format for the Department is as follows:

- PDF (.PDF)
- 200 dpi resolution
- Full size
- Monochrome
- Rotated correctly (rotated such that the bottom of the sheet image is parallel to the bottom of the screen when viewed)
- Adobe Version 7+
- Single page PDF files (a single page PDF for each sheet No multi-page PDF files).

STANDARD FILENAME STRUCTURE

All electronic plan filenames shall begin with the PI Number, followed an underscore and numbered consecutively in increments of 0001. For example, if the PI Number is 123456, the cover sheet will be named 123456_0001.pdf, with the next sheets being named 123456_0002.pdf, 123456_0003.pdf, etc.

SECTION 2 - LETTING PLANS PROCESSES

MAJOR ROADWAY PROJECTS

(This process applies to all projects in the current month's Letting, as well as all Preliminary Advertised projects.)

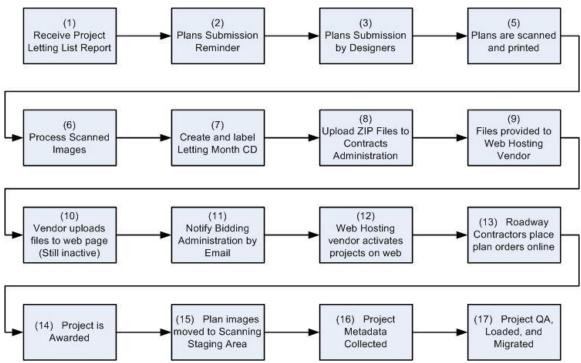


Figure 2-1 – Letting Plans Process Diagram

1. Project Letting Lists: During the week before or the week of printing/scanning leading up to the advertisement date, Bidding Administration will provide the Engineering Document Management staff by email a final list of the Projects in the next month's Letting. This report will include the projects, along with the assigned Contract ID and responsible Project Manager. The Contract ID will be used in renaming the scanned images. A portion of a sample report is reflected below.

August 19, 2005 LETTING

Call Number	PID/ContID	Project Number and County	Designer	<u>Pages</u>
2	611250-, 611260-, M002466, M003307	NH-IM-575-1(31), NH-IM-575-1(32), CSNHS-M002-00(466), CSNHS-M003-00(307)	A. Casey (RD)	153.3
		CHEROKEE, COBB		
	B11489-05-000-7	COMBO - PARTIAL RELET - #2 10/03 Rej, #1 1/04 Rej, #1 4/04 Rej, #2 7/04 WD, #1 10/04 WD, #2 2/05 Rej, #2 5/05 Rej		

- 2. <u>Plans Submission Reminder:</u> The Design Group Manager responsible for Plans Reproduction for the Lettings (or a designated representative) will send an email to the relevant Project Managers reminding them that their project(s) is scheduled for the next month's Letting and plans are due in our office by 10:00AM on the "Original Plans to Reproduction Section" date on the Letting Schedule.
- 3. Plans Submission: All Project Managers will submit either hard-copy paper or electronic plans to Design Policy & Support Engineering Document Management staff by 10:00AM on the "Original Plans to Reproduction Section" date on the Letting Schedule. Please note that whenever a holiday occurs on the "Original Plans to Reproduction Section" date, the email reminder shall be sent out in an effort to remind all relevant project managers that plans are due one day earlier than usual, which will be on a Thursday. All plan sets that are submitted must contain clear, clean, and completely legible sheets so that clean and quality copies can be made from them. All offices are to submit their plans through Design Policy & Support, including General Office, Traffic, Safety, and Design, and Districts. No office is to submit their plans directly to a vendor or print their plans in-house. This is to insure that all plans required for the Letting are printed and scanned and received on-time for uploading for the advertisement of the projects by Bidding Administration.

Electronic Plans Submissions – Effective starting with the April 2010 Letting submission:

In order to expedite plan submission, electronic submission is now being implemented. Some offices have already been scanning their plans and have them in electronic format. Therefore, as long as the requirements for file format and file-naming in <u>Section 1</u> of this document are met to insure plan order, clarity, and completeness, plans may be submitted in electronic format for Lettings.

The following requirements MUST be met:

- > Images are scanned in correct sheet order
- ➤ Images MUST be scanned according to Department standards as PDF at 200 dpi for all plan sheets (See <u>Section 1</u>)
- ➤ Images named according to Department standards (See <u>Section 1</u>)
- ➤ If submitted by CD:
 - o CD containing the images must be labeled with Project Number, PI Number, County, and Month of Letting
 - Submittal of verification form (to be cut or folded and placed in the CD Cover)

 Please note verification statement by the Project Manager (Available at http://topps/homeoffs/preconstruction/roaddesign/downloads.shtml under the link "Electronic Letting Files Submittal Form".
- ➤ <u>If submitted through Server Location</u>:
 - The PDF images meeting the GDOT file format standards are to be placed in the following location under a PI Number folder that the Project Manager is responsible for creating:

\\gdot.ad.local\\gdot\\Preconstruction\\RoadDesign\\Pccommon\\Printroom\\
Request Images\\Letting Files\\

O Submittal verification form – Please note the verification statement by the Project Manager (Available at http://topps/homeoffs/preconstruction/roaddesign/downloads.shtml under the link "Electronic Letting Files Submittal Form". This document is to be included in the folder created above with the images as verification of QA being done by the Project Manager on the images/plans being submitted (enter your name on the line above the title of "Project Manager" and save the file as verification of your review).

Keeping Georgia on the Move	Electronic Letting Files Submittal Form	
Project Number:		
PI Number:		
County:		
I have reviewed and that are being subm and readability and in accordance with t standards.		
Project Manager		

- 4. Late Plans Submissions: If required plans are not received by Design Policy & Support, Engineering Document Management by 10:00AM of the due date, then Engineering Document Management staff will contact the relevant Project Manager(s), reminding them that plans were due in this office by 10:00AM. If plans are not in our office by Close of Business on the due date, Engineering Document Management staff will email the State Transportation Office Engineer in Bidding Administration and let him know what projects are late in being submitted, along with the Office and Project Manager responsible for those projects.
- 5. **Scanning and Printing of Plan Sheets:** On the first work-day of the week following the due date for plans to be submitted to Design Policy & Support, all plans are scanned (if submitted in hard-copy format) in one of two ways based on the current business process in place at the time.

- a. The plans are scanned in-house by the Engineering Document Management Print Room staff and will be scanned to the server (\\gdot.ad.local\gdot\\Preconstruction\\Road\Design\\RD14\\\Print\Room\Scanned\Jobs\\Letting\\)) in a PI Number sub-folder under the current month's Letting folder.
- b. The plans are picked up by the contract vendor (if a contract exists) for printing and scanning to a CD. An order form is completed by the Engineering Document Management staff and submitted along with the plans. The Engineering Document Management staff is responsible for reviewing each set of plans to insure there are no obvious errors (for example, only 80 sheets are in a roll of plans that should have 600 sheets) and then contacts the current contract vendor to pick up the plans to be printed and scanned.
- 6. **Processing of Scanned Images:** (For more detailed documentation of the processing of the images and metadata, contact the Engineering Document Management staff to see the document entitled *Generating CSV Files for Monthly Letting.*)

The Design Policy & Support, Engineering Document Management section is responsible for processing the scanned images to get them in the format required for posting for advertisement by Bidding Administration. Once the files are received, the Engineering Document Management staff will:

• QA/QC the files to insure they are in correct order, contain the correct sheets for each project, and are in the correct file name format (PI#_SHEET#, i.e. 712930_0001).

Processing files for Bidding Administration:

<u>For Design-Build Projects only:</u> All plan sheets of the "Costing Plans" that are submitted for advertisement will be "stamped" with a watermark of "Costing Plans" as part of processing the plans for advertisement.

- Create a new folder under the directory below by the name of the month and year of the Letting being processed (ie: February 2006).
 \Gdot-dfs\Gdot\Preconstruction\RoadDesign\RD14\Electronic Letting Files
 Conversion\
- Create folders under the folder just created above by the names of the Contract ID's for that month's Letting (ie: *B12205-06-000-2*).
- Copy the files to the appropriate folders just created (ie: *February 2006**B12205-06-000-2*)
- Rename the scanned images (PDF format) in the folders to a format of *Contract ID #* plus the *sheet number* (i.e. *B11739-05-M002-2_0001*). The *Flash Renamer* software is used to rename all files.
- After properly renaming the files, create a Zip file in the folder by the name of the *Contract ID Number.* The ZIP file will contain all the renamed images for the project.
 - a. <u>Contract Vendor Only:</u> In the case that any CD's have problems, they are fixed by the Engineering Document Management staff before processing. In the case of an error by the contract vendor, this may require them to burn a

new CD and deliver it back to us in an extremely prompt manner. Once the CD is reviewed and approved, it will then be processed as documented above.

- 7. Create CD: The Engineering Document Management staff will use one of the following methods to create the "Bid Set CD": (1) Use the CD created by the contract vendor; (2) Burn a new CD in the case of errors; or (3) Use the files generated by the Print Room staff now located on the Scanning Staging Area on the server. The CD will contain all the projects for the current month's Letting.
- 8. **ZIP File Uploading to Bidding Administration:** The Engineering Document Management staff will then perform a final QA/QC on the ZIP files to insure they are correctly named. Once verified, the Engineering Document Management staff will copy the ZIP files into the appropriately named folder under Bidding Administration (i.e. *July 2005*) on the
 - \\Gdot-dfs\Gdot\Construction\ContractsAdministration share.
- 9. Files Provided to Web Hosting Vendor: At the same time the files are being prepared for Bidding Administration, Engineering Document Management Staff will copy the ZIP files to a portable HDD or upload them to the Web Hosting Vendor's site.
- 10. <u>Upload Files to Web Page:</u> The Web Hosting Vendor will then upload all files to the web page but hold them as inactive until notified by GDOT Engineering Document Management Staff that the files can be made active.
- 11. **Email Notification:** After copying the files into the Bidding Administration share, Engineering Document Management staff will send an email to the appropriate staff in Bidding Administration notifying them that the files are ready to be uploaded for advertisement.
- 12. Web Hosting Vendor Notification: At the advertisement time and date, the Engineering Document Management staff will verify the projects included in the Letting using the "Notice to Contractors" on the Bidding Administration web page. Based on that list, the vendor will be notified to make the appropriate projects active for viewing and printing from the web.
- 13. <u>Roadway Contractors Place Orders Online:</u> All Roadway Contractors requesting plan sets will go to the Web Hosting Vendor's site and place orders online.

NOTE: Once the images have been confirmed as acceptable, the original hard-copy plans are returned to the Project Manager by the Engineering Document Management Staff.

In certain instances, projects may be pulled from a Letting or not Awarded and "re-Let" at a later date. All re-let projects will follow the normal Letting process as a new, complete, and up to date set of plans shall be submitted by the Project Manager for processing as stated above.

<u>Processing files for publishing to electronic repositories (AFTER AWARD):</u>

NOTE #1: Starting with the February 2009 Letting, the plan sheet image files will not be available publicly until approximately one month after they are Let. The new process insures that a project was actually Awarded before publishing it. Once the "Award Announcements" notice is published on the Bidding Administration web page and the project is confirmed as being awarded, the project will enter the process documented below for metadata gathering.

14. Award of Project: Project is awarded.

For Design-Build Projects only - "Costing Plans"

Since the plans (Costing Plans) submitted for advertisement are considered "preliminary", they will not follow the metadata gathering process and they will not be migrated into the standard "Construction" folder for the project on ArchiveStore. Instead, the images will be manually moved to the *Design Build Documents* folder under the PI Number folder on ArchiveStore for that project. Additionally, as the remainder of the RFP package is submitted, those documents will also be placed into the *Design Build Documents* folder, resulting in the complete RFP package being available online through this folder. (See the Design-Build note at the end of this section for information relating to the "Released For Construction" plans.)

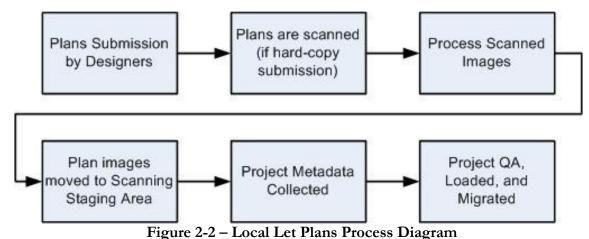
For Design-Build Projects only - "Released For Construction" Plans

After Award, the plans will continue to be developed until they reach the next milestone of being considered "Released for Construction" plans. Typically, this occurs approximately one-third (1/3) of the way through the contract. The "Released For Construction" plans will be submitted to the Electronic Document Management group for processing. These plans will be considered the "Construction" plans and will be processed as documented below.

- 15. Move Plan Images: Create sub-folders under
 - \\gdot.ad.local\\gdot\\Preconstruction\\RoadDesign\\RD14\\Scanning Staging Area\\\ by the PI Number of each project and copy all image files to their appropriate PI Number sub-folder created above for collection of metadata.
- 16. **Project Metadata Collected:** Collection of metadata will generate a CSV file that is created in a temporary folder that is internal to the Engineering Document Management, while the images will be located in the individual PI Number folders as stated above.
- 17. **Project Loaded and Migrated:** After the CSV file has been verified by the Engineering Document Management Supervisor, it will be copied to the Original Batch Files folder directly under the Scanning Staging Area folder, QA will be conducted, a Load will be performed, and it will be ready for the next Migration to occur.

LOCAL LET PROJECTS

Effective immediately, all Local Let projects (projects not Let by GDOT) will be submitted for archival purposes. Projects are not to be submitted until the Project Manager has confirmed that the project has been AWARDED.



- Tigure 2 2 Boom Bet Timis Troccoo Bingrain
- 1) If submitting electronically, the Project Manager is responsible for insuring that all images meet the File Format and File-Naming requirements in <u>Section 1</u> of this document.
- 2) Projects may be submitted in one of three ways:
 - a. Project submitted on CD/DVD:
 - Place the project image files on a CD/DVD. More than one project can be placed on the CD/DVD.
 - Label the CD/DVD with the PI Numbers of all projects contained on it.
 - Submit the CD/DVD to the Design Services Supervisor by transmittal letter with a subject of "Local Let Project".
 - b. Project submitted through PCCOMMON:

Folder Creation:

The location of the standard folders for submission of Local Let Projects is as follows: \\gdot.ad.local\gdot\Preconstruction\RoadDesign\PCCOMMON\Printroom Request \overline{Images\}

Under this main folder, there is a sub-folder for each office. Under the appropriate office sub-folder, the Project Manager must create a Project folder for the project to be archived according to the standard of **PI Number, underbar, the date that the images are scanned**. (See **Figure 2-3** below) Once the folder is created, the images are to be copied to the folder. It is the responsibility of the Designer to first verify that the plans to be scanned are arranged in the correct order. The plans must then be scanned in sequential order.

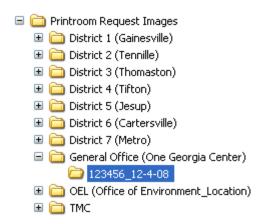


Figure 2-3 - Folder Structure Diagram

- c. Project submitted in hard-copy format:
 - Submit the plans to the Design Services Supervisor by transmittal letter with a subject of "Local Let Project".

Processing files for publishing to electronic repositories (AFTER AWARD):

- 1) Award of Project: Project is awarded.
- 2) Move Plan Images: Create sub-folders under \\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area\\\ by the PI Number of each project and copy all image files to their appropriate PI Number sub-folder created above for collection of metadata.
- 3) <u>Project Metadata Collected:</u> Collection of metadata will generate a CSV file that is created in a temporary folder that is internal to the Engineering Document Management, while the images will be located in the individual PI Number folders as stated above.
- 4) <u>Project Loaded and Migrated:</u> After the CSV file has been verified by the Engineering Document Management Supervisor, it will be copied to the Original Batch Files folder directly under the Scanning Staging Area folder, QA will be conducted, a Load will be performed, and it will be ready for the next Migration to occur.

MAINTENANCE (LETTER-SIZE) PROJECTS

Starting with the April 16, 2010 Letting, all maintenance (letter-size) projects will be submitted to the Engineering Document Management (EDM) Group in the Office of Design Policy and Support for publishing for research purposes. Projects will be submitted after Award of the project has occurred.

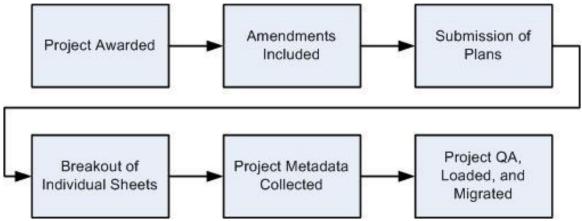


Figure 2-4 – Letting Plans Process Diagram

- 1) **Award of Project:** Project is awarded.
- 2) <u>Include Amendments:</u> Once the project is awarded, all amendments will be included in the plans by the Maintenance Office.
- 4) **EDM Staff Processes Plans:** The EDM staff will process the plans as follows:
 - a. <u>Break out individual sheets</u>: The EDM staff will use Adobe Professional to break out the plan pages into individual PDF files from the multi-page PDF file, following the standard naming scheme for plan sheets (<u>Section 1</u>).
 - b. <u>Collect Metadata</u>: Metadata will be collected according to established procedures for each sheet.
 - c. <u>Migrate Project</u>: The project will then be migrated according to established procedures and will be made available internally and externally from *ArchiveStore*.

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SECTION 3 - "USE ON CONSTRUCTION"/"AMENDMENT" REVISION AND BRIDGE AS-BUILT PROCESS FOR AWARDED PROJECTS

Once projects are stored within the plans repository, there may be revisions that are considered either "Use on Construction" or "Amendment" revisions or "Bridge As-Builts". All these revisions will be submitted as directed in Appendix "H" of the Plan Development Process (http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/PDP/4050-1.pdf). This section documents how the revisions are processed. For further clarification of Revisions versus Amendments, please refer to the Plan Revision procedures Flowchart in Appendix A in this document.

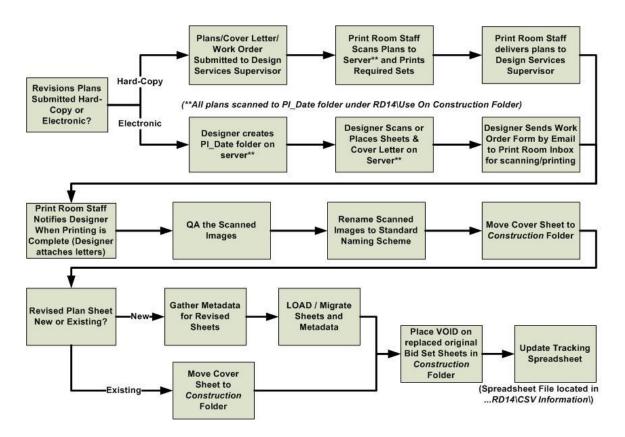


Figure 3-1 – Use on Construction Revision Process Flowchart

Resulting "Design Store"/ Design Submittal **Design Services Staff Actions** "ArchiveStore" Folder Contents PI Number 123456 0001.tit 123456 0001.ti Delete and Construction Replace Sheet VOID Place "VOID" on original (Only the "Use on Construction" Sheets will sheet -Construction be submitted by Design -Original sheets will NO NOT the "Voided" Sheet) be deleted 123456 0056.tif 123456 0056.tif Revised sheet replaces existing sheet if present -Revision Only the latest revision is maintained USE ON CONSTRUCTION

CONSTRUCTION/AMENDMENT REVISIONS

Figure 3-2 – Use on Construction Revision Process Diagram

- 1. <u>Submission of Revisions by Design:</u> Plan revisions will be submitted by Design directly to the Design Services Supervisor in hard-copy format or submitted electronically as desired.
 - a. Hard-copy Submittal: The submittal letter shall have a subject line of *Use On Construction* and the plans shall be clearly labeled as "Use on Construction" or "Amendment" revisions. The plans must be submitted with the cover letter attached, along with the standard Print Room Work Order Form attached as well. The Print Room Staff will scan the files directly to the following location in a folder to be created by the name of the PI Number for the project:

 \Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use on Construction\.

The Print Room staff will contact the Designer to notify them to come to the Print Room to attach the letters for distribution when done. The original sheets will not be returned to the Design Services Supervisor until all metadata has been collected and

the revision published. At that point, the plans will be returned to the Designer. See Appendix P of the PDP for further clarification on revisions.

b. Electronic Submittal:

- 1. The Designer must first create a PI Number, underbar, Date sub-folder (ie: 123456_5-13-09) under \\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use On Construction\.
- 2. The Designer will then scan their sheets to or place their existing electronic sheet images in the PI Number sub-folder just created, remembering to scan the cover letter as the first document.
 - i. The filenames shall conform to the standards documented in <u>Section 1</u>. (*ie: 123456_0001.pdf, 123456_0002.pdf, etc.*). The filenames do not have to correspond to the actual sheet numbers they represent as that is the responsibility of our Engineering Document Management staff.
 - ii. The first file will always be the transmittal letter named PI Number_0000.pdf (ie: 123456_0000.pdf). The "0000" file will always represent the Transmittal letter. If there is no transmittal letter attached to the Revision, it will not be processed. The revision sheets will follow the transmittal letter and will be in the format specific above.
- 3. Then, the Designer will email the Print Request Work Order form to the Print Room e-mail address: (printroom@dot.ga.gov) and the plans will be printed according to the Distribution List and Work Order Form.
- 4. The Print Room staff will contact the Designer to notify them to come to the Print Room to attach the letters for distribution when done.

For detailed documentation on the electronic submittal process for revisions, please refer to the document entitled *Process for Generating CSV files for Revisions* available from the Design Policy & Support, Engineering Document Management staff.

2. Internal Processing of Revisions by Engineering Document Management staff:

The responsible staff will QA the images, and if acceptable (if not, the responsible staff will coordinate with the Print Room staff to rescan), will rename the scanned images to the correct file-naming scheme for the project*** (i.e.: correct PI Number and sheet number for the revised sheets), and will move the scanned Cover Sheet into the Construction folder, overwriting the existing cover sheet. The Plan Sheet files (if they are "replacement" sheets) will be moved into a "Revision" folder under the existing project on *ArchiveStore*, overwriting the existing sheet if the same sheet already exists. If the sheets are new sheets (no revisions have occurred previously to the sheets and they do not reside in the *Revisions* folder on *ArchiveStore* for that project), the responsible staff will gather metadata for the revised sheets and create a CSV file that will be loaded and migrated, publishing the revision to *ArchiveStore*. The same staff will also go into the

original sheet in the Construction folder and place the word "VOID" on the original plan sheet that was revised.

All files, regardless of the process, should be processed within 48 hours after receipt.

3. Revision Tracking: Either the responsible staff or the Design Services Supervisor will update all information on the Construction Revision Tracking Spreadsheet through completion of the revision work.

*** In some cases, sheet numbering will cause the filename to exceed the 4-digit extension (ie: 123456_1025A.pdf exceeds the 4-digit extension beyond the underbar which will cause issues when *Loading* and *Migrating* the metadata. Therefore, the filename in this case will be the last filename used for the project (ie: 123456_1087.pdf) plus one and following (ie: 123456_1088.pdf, 123456_1089.pdf, etc.).

Special Note: In some cases, revisions may be "Void on Construction" Revisions. In this case, they will be handled in the same manner as "Use on Construction" Revisions. The original plan sheet in the *Construction* folder will have "VOID" placed on it electronically and the "Void on Construction" Sheet will be placed in the *Revision* folder.

Special Note: Under the new process documented above, the use of "A" sheets is eliminated unless a new sheet is actually added as part of a revision. However, if older revisions done prior to this process contain "A" sheets, the "A" sheets will be maintained since that revision is tracked as an "A" sheet in the Revision Summary sheet, etc. Files will be named as follows: 123456_132A.pdf.

BRIDGE AS-BUILT PLANS

In addition to Construction Revisions, the Office of Bridge Design also submits what are called "Bridge As-Built Plans". These as-built plans are comprised of shop drawings from fabricators or sheets on which in-field dimensions or elevations have been entered. When these type As-Built sheets are received, they are to be placed in the *Bridge* folder under the *As-Built* folder for the appropriate project. The reason for them being placed in the *As-Built Bridge* folder is that the shop drawing sheets will not contain sheet numbers and are not listed on the Index for the plans. Therefore, to easily locate the sheets, they will be placed in a separate folder just for Bridge As-Built plan sheets. The process for handling Bridge As-Built plan sheets is much the same as Construction Revisions with the following exceptions:

- The submittal letter shall have a subject line of *Bridge As-Built Plans*.
- The revised sheets will be placed in the *As Built\Bridge* folder instead of the *Construction\Revision* folder.
- After scanning and QA, the original sheets will then be destroyed by the Engineering Document Management staff.

The file-naming of Bridge As-Built plans will adhere to the following guidelines:

1) Sheets on which in-field dimensions or elevations have been entered

Typically, these type sheets were part of the original bid set and have sheet numbering included. Therefore, the filename will be the same as the filename of the corresponding sheet in the original bid set plans. If the sheet filename in the original bid set is 123456_0059.pdf, the revision sheet will be renamed to 123456_0059.pdf and will be placed in the *As-Built/Bridge* folder.

2) Shop Drawings

Typically, Shop Drawing sheets are new sheets to be added to the plans. They were not part of the original bid set plans and contain no sheet numbering whatsoever. Therefore, they will be placed in the *As-Built/Bridge* folder as well, but with a filename of the next sequential number after the last number in the original bid set plans (initial shop drawing submission) or the next sequential number after the last number in the last shop drawing submission plans (additional shop drawing submission).

(SEE EXAMPLES BELOW)

Examples:

a. Initial Shop Drawing submission

```
Original bid set plans sheet numbering: 123456_0001.pdf – 123456_0192.pdf
```

Initial Shop Drawing submission sheet numbering: 123456_0193.pdf – 123456_0212.pdf

b. Subsequent Shop Drawing submissions

```
Initial Shop Drawing submission sheet numbering (as shown above): 123456_0193.pdf – 123456_0212. pdf
```

Subsequent Shop Drawing submission sheet numbering: 123456_0213.pdf – 123456_0224.pdf

Subsequent Shop Drawing submission sheet numbering: 123456_0225.pdf – 123456_0242.pdf

SECTION 4 - PROJECT ARCHIVAL PROCESS

Once construction on a project is completed and all revisions have been included, a Final Acceptance Letter will be received by the Office of Design Policy & Support. The Final Acceptance Letter is the "trigger" by which the project archival process takes place. According to the Department's current records retention policies, all Construction plans shall be sent to the State Archives upon completion for permanent archival. This section documents the process by which the final project archival occurs.

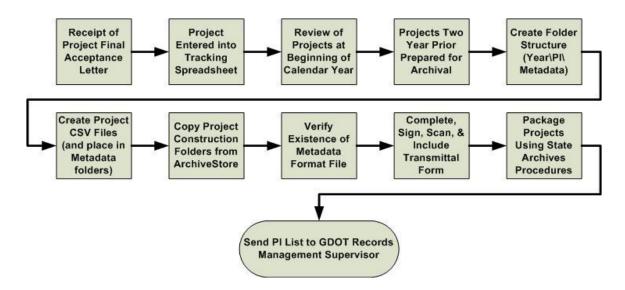


Figure 4-1 – Project Archival Process Diagram

- 1. Final Acceptance Letter (cc: Design Policy & Support Office Head): All Final Acceptance Letters will include a copy to the State Design Policy & Support Engineer and/or the Engineering Document Management Manager. This letter will be provided to the responsible staff within Engineering Document Management.
- 2. Tracking of Final Acceptances: As a Final Acceptance Letter is received, the responsible staff within Engineering Document Management will enter the project information into a spreadsheet

 (\\gdot.ad.local\gdot\\Preconstruction\\RoadDesign\\RD14\\Final Acceptance Letters\\FinalAcceptance.xlsx\) containing tabs representing each calendar year.
- 3. Archival of Final Acceptance Projects: At the end of each calendar year (typically in early January), the spreadsheet will be provided to the Engineering Document Management Manager for review and processing. The Engineering Document Management Manager will first review the previous year's spreadsheet. The spreadsheet for two years back will then be accessed and all projects on that spreadsheet will be prepared for archival.

<u>For example</u>, in January 2010, the projects listed under the "2008" tab in the spreadsheet file will be processed for archival. The year lag allows for any revisions not previously submitted to be included to produce a true "final" set of plans for archival purposes.

- ✓ The responsible Engineering Document Management staff will be assigned to access the projects on the spreadsheet for the appropriate year.
- ✓ Under the GDOT_Data_Archive folder in the project Archival Staging Area folder (\\gdot.ad.local\\gdot\Preconstruction\RoadDesign\RD14\Project Archival Staging Area\\GDOT Data Archive\), create a folder with the name of the year of the projects being archived (ie: archiving all projects receiving final acceptance in the year 2000, create a folder named "2000").
- ✓ Under the year folder just created, create folders by the name of each PI Number being archived. Be sure to include the dash ("-") on all 6 digit PI Numbers.
- ✓ Under each PI Number folder, create a sub-folder named "Metadata".
- ✓ The CSV file for each project will be generated using the query in TRAQS (RD Metadata Archive Extract), following the procedures documented in the internal document TRAQS Query_RD Metadata Archive Extract.docx .
- ✓ The metadata CSV file can be created directly in the "Metadata" folder for the appropriate project or it can be moved to the "Metadata" folder from where it is created.
- ✓ Next, <u>COPY</u> the "Construction" folder for the appropriate project from ArchiveStore to the appropriate PI Number folder on the Project Archival Staging Area. <u>The "Construction" folder is to be COPIED, NOT MOVED!</u> This will capture all construction plan sheets, as well as any revisions that have been made to the plans as well.
- ✓ After all CSV files have been created and placed in the "Metadata" folder for each projects and after all the "Construction" folders have been COPIED to the appropriate projects, verify that there is a file called *Metadata_Format.docx* in the root "GDOT_Data_Archive" folder.
- ✓ Complete the *State Archives Transmittal Form for Digital Records*, sign it, and then scan the form to PDF for internal archival purposes and to send with the package to State Archives.
- ✓ The scanned PDF of the transmittal form is to be placed in the root "GDOT_Data_Archive" folder along with the metadata format file.

- ✓ The images and CSV information will be packaged and transferred to the State Archives according to the established procedures listed in the internal document provided by State Archives entitled *Transferring Digital Records to the Georgia Archives.pdf*.
- ✓ Once records are ready to be sent to State Archives, a list of the PI Numbers being archived will be sent to the GDOT Records Management Supervisor.

SECTION 5 - CONSTRUCTION AS-BUILT PLANS PROCESS

Once construction is complete and all changes have been recorded on the "As-Built" plans, the plan set is to be submitted directly to the Office of Design Policy & Support and will be processed as follows.

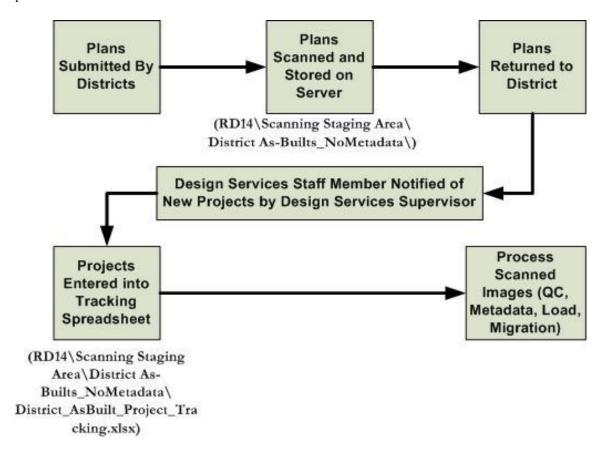


Figure 5-1 – Construction As-Built Plans Process Diagram

- 1. Plans submission from the Districts: All As-Built plans are to be submitted to the Office of Design Policy & Support, State Design Policy & Support Engineer, Attn: Design Services Supervisor. The plans are to be clearly designated as "AS-BUILT PLANS".
- 2. Plans Scanning: In-house staff (or a contract vendor) will scan all plan sheets. If contract vendor, the plans will be scanned to a CD/DVD. If in-house, the plans will be scanned to a PI Number sub-folder under the appropriate District folder under \\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging \\Area\District As-Builts \\NoMetadata\\\. If scanned by a contract vendor, the images will be placed in a PI Number sub-folder under the appropriate District folder under \\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging \\Area\District As-Builts \\NoMetadata\\\.

- 3. **Return Plans to District:** All As-Built original hard-copy plans will be sent back to the appropriate District Office by the Design Services Supervisor once they are scanned.
- 4. Notification of New Project(s): At the time the plans are prepared for return to the District, the Design Services Supervisor will send an email to the Engineering Document Management staff member responsible for entering the project information into the tracking spreadsheet with a listing of the PI Number(s) of the new project(s).
- 5. <u>Plans Tracking:</u> From the Cover Sheet, the responsible Engineering Document Management staff member will enter all new projects submitted by the Design Services Supervisor into the tracking spreadsheet by PI Number, PA Number, County, and District Number. (\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area\District As-Builts NoMetadata\District AsBuilt Project Tracking.xlsx)
- 6. **Processing of Scanned Images:** Engineering Document Management is responsible for processing the scanned images, which includes QC, metadata gathering, and the typical *Load* and *Migration* processes. The project plans will remain in this folder until they have been completely processed and migrated to ArchiveStore.

SECTION 6 - ELECTRONIC RW PLANS PROCESS

The Electronic RW Plans Process consists of two sub-processes as shown below – Pre-Approval and Approved RW Plans Processes.

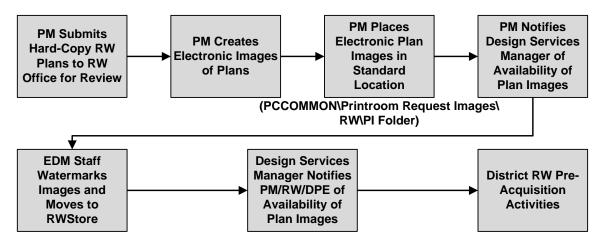


Figure 6-1 - Electronic Right of Way Plans Process Diagram - Pre-Approval Process

- 1. **PM/DPL Submits Plans to RW Office for Review:** A set of **full-size** hard-copy RW Plans will be submitted by the Project Manager (PM)/Design Phase Leader (DPL) to the Office of RW for review and approval.
- 2. **PM/DPL Creates Electronic Images of Plans**: At the time of submission, the PM/DPL will scan and create electronic images in the standard electronic file format (Section 1) that represent the RW Plans being submitted.
- 3. PM/DPL Places Electronic Plan Image son PCCOMMON: The resulting electronic plan images shall be placed in a PI_Date format folder (ie: 123456_3-31-10) in the standard location

 (\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pccommon\Printroom Request
 Images\RW\) for posting of RW Plans to RWStore.
- 4. **PM/DPL Notifies Design Services Manager**: The PM/DPL will send an email to the Engineering Document Management (EDM) Staff (EDM@dot.ga.gov) notifying of the availability of the plans in the standard location.
- 5. **EDM Staff Processes Images:** The assigned EDM Staff will access the image files in the standard location and process them using the *KIP Request* software to add the watermark of "For Review Only" and to move the resulting images to a PI Number folder on RWStore. At that point, the plans will be available electronically through TREX for INTERNAL access only.

6. <u>Design Services Manager Notifies of Availability of Plans:</u> After QA is completed on the resulting images, EDM staff will send an email to the Project Manager, Design Phase Leader (if applicable), Right-of-Way Plans & Engineering Unit, and District Preconstruction Engineer notifying them that the plan images are available on *RWStore*.

7. <u>District Begins Pre-Acquisition Activities</u>

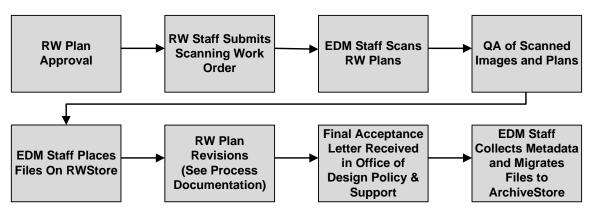


Figure 6-2 – Electronic Right of Way Plans Process Diagram – Approved RW Plans

- 1. **RW Plan Approval**: Final RW Plans **(full-size)** are submitted for approval to the RW Office according to the Plan Development Process (PDP).
- 2. **RW Staff Submits Scanning Work Order:** Once the RW Plans are approved, the RW Staff will prepare a work order for submission of plans to the contract vendor or inhouse staff for scanning into electronic format. The RW staff will designate the plans on the work order form as current plans (*RWStore*). The work order and plans will be provided to the contract vendor or in-house staff, with a courtesy copy to the Design Policy & Support, Design Services Supervisor.
- 3. **QA of Scanned Images and Plans:** The plans will be scanned into the Department's standard format (See <u>Section 1</u>) and will be reviewed by EDM Staff for correctness and quality.
- 4. **EDM Staff Places Files on RWStore:** If the images are acceptable after QA, the EDM Staff will place the image files on *RWStore* in a PI Number folder (If pre-approval "For Review Only" plans exist already, they will be deleted and replaced with the approved RW plans). At that point, the plans will be available electronically through TREX for <u>INTERNAL</u> access only.

5. **RW Plan Revisions:** All RW revisions will be submitted as directed in Right of Way Memo Number 05-10. This step documents how those revisions are processed electronically.

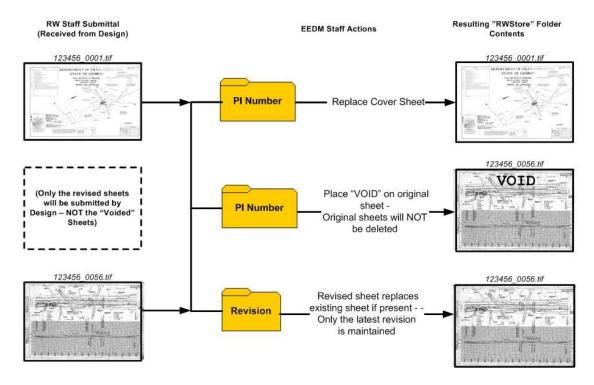


Figure 6-3 – RW Plan Revision Process Diagram (Reflects RWStore folder structure)

- a. Distribution: Plan revisions will be handled by the Project Manager or submitted by Design in hard-copy form. Included on the revision distribution list will be a copy sent to Office of Design Policy & Support, Brent Story, attn: Design Services Supervisor.
- b. Internal Processing of Revisions by EDM Staff: The responsible staff will scan the hard-copy plans, rename the scanned images to the correct file-naming scheme for the project (i.e.: correct PI Number and sheet number for the revised sheets), QA the images, and will move the scanned files into a "Revision" folder under the existing PI Number folder on RWStore, overwriting the existing sheet if the same sheet already exists. The same staff will also go into the original sheet in the PI Number folder and place the word "VOID" on the original sheet that was revised. All files should be processed within 2 business days after receipt.
- 6. Project Final Acceptance Received in Design Policy & Support: All Final Acceptance letters for projects are received through the Office of Design Policy & Support.

7. **Design Policy & Support Staff Migrates Project to ArchiveStore:** Once the Final Acceptance letter is received for a project, the EDM Staff will gather metadata and migrate the project from *RWStore* to *ArchiveStore* according to established and standard procedures. After all files are migrated, the project and associated folders will be deleted from *RWStore*.

NOTE: Currently, there are numerous revisions that have been submitted to the Office of RW and are awaiting inclusion in to the plans. As the RW Staff goes through these revisions, the following decision-making process will be used.

- 1) If a project has already been scanned and exists on RWStore, the hard-copy revision will be sent to *Office of Design Policy & Support, Brent Story, attn: Design Services Supervisor* with a transmittal letter to be included electronically.
- 2) If the project has not been scanned already and does not exist on RWStore yet, the revision will be included in the hard-copy plans before sending the plans for scanning.

NOTE: Until all approved RW Plans are scanned, some revisions may arrive in the EDM Group for which there are no RW Plans on RWStore. In that case, the revision will be discarded by the EDM staff since it will be inserted into the plans before being submitted for scanning by the RW Office.

SECTION 7 – PROJECT CORRESPONDENCE FILES PROCESS

(NO CONTRACT CURRENTLY EXISTS TO SUPPORT HIS PROCESS!)

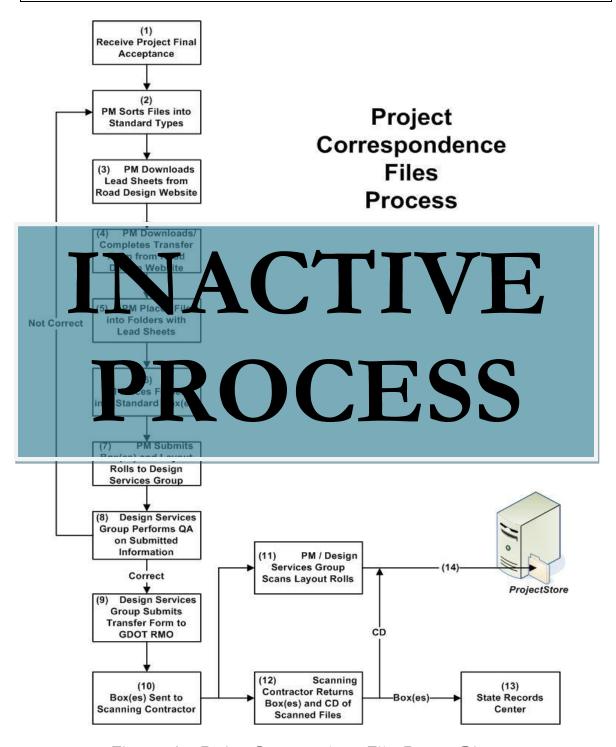


Figure 7-1 - Project Correspondence Files Process Diagram

- 1) **Receive Project Final Acceptance:** Once the Final Acceptance letter is received for a project, the project correspondence files are eligible to be archived under this process.
- 2) **PM Sorts Files into Standard Types:** Once Final Acceptance is received on a project, the Project Manager will then be responsible to sort all project correspondence files. Only those documents pertaining to one of the standard types below will be maintained.
 - Project Programming Documents
 - Project Concept Report
 - ➤ Concept Layout (Roll Plots Scanned and stored separately)
 - Project Cost Estimates
 - ➤ Value Engineering Report
 - Notice of I &D
- Environmental Document
 Inblic Hering Display (Re Plots Scarded anestore exparate
 Lerna Letter of Trans litta.
 External Letters
 Project Design Data Book
 Caparty addi
 Drain ge Calcortio Cana Studies
 Soil Survey and Pavement Evaluation Report
 - Approved Pavement Design
 - ➤ Intersection Sight Distance Studies
 - Design Exceptions & Variances
 - Field Plan Review Report (PFPR & FFPR) and Responses
 - Consultant Contract(s)
 - Miscellaneous
- 3) PM Downloads Lead Sheets: Once the documents are sorted into the standard types, a Lead Sheet will be placed with each document type. The Lead Sheets contain the scanning project name, the standard document type, bar code, and a space to enter the PI Number associated with the project correspondence files being archived (See Figure 7-2 for sample sheet). The Lead Sheets will be used by the scanning vendor to separate and index the various types of documents so they can be returned in a form that will make the files easy to locate. The Lead Sheets can be downloaded from the Design Policy & Support "Downloads" page. Once downloaded, the Project Manager will enter the appropriate PI Number (ALL 7 DIGITS including the dash at the end of 6-digit numbers 123456-) for the project files being archived on EACH Lead Sheet.

NOTE: DO NOT copy the Lead Sheet forms since this could distort the bar code. Please download each form needed directly from the web page and print them.

GDOT PROJECT

CORRESPONDENCE

FILES

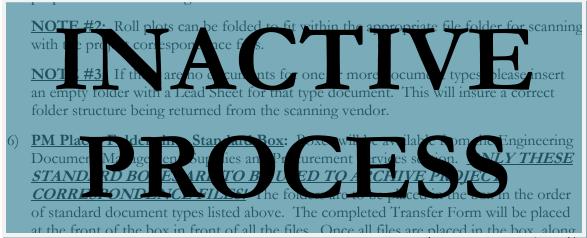
INTAGE Programments PROCESS * PP*

PI#: 123456-

Figure 7-2 - Project Correspondence Files Lead Sheet Example

- 4) PM Downloads and Completes Transfer Form: The Transfer Form can be downloaded from the Design Policy & Support "Downloads" page. All standard fields are already completed. The PM is responsible for completing the following fields:
 - **6. File Years:** (Provide only the year of the latest Final Acceptance)
 - 10. Cut Off Date: (Date on Final Acceptance letter)
 Hold in: Current Files Area + (length in years since Final Acceptance)
 Transfer to Archives/SRC: (Date you are completing transfer form)
 Hold Time: (20 years minus Hold In: Current Files Area time above)
 Eligible Disposition Date: (Cut Off Date above + 20 years)
 - **14. Date Transmittal Prepared:** (Date you completed the transfer form)
- 5) PM Places Files into Folders with Lead Sheets: The Project Manager will place all files associated with a standard document type into a file folder with the associated Lead Sheet in front of that file. (Based on the size of the project files, either a manilla folder may be used or an expanding file may be required to adequately hold the files.)

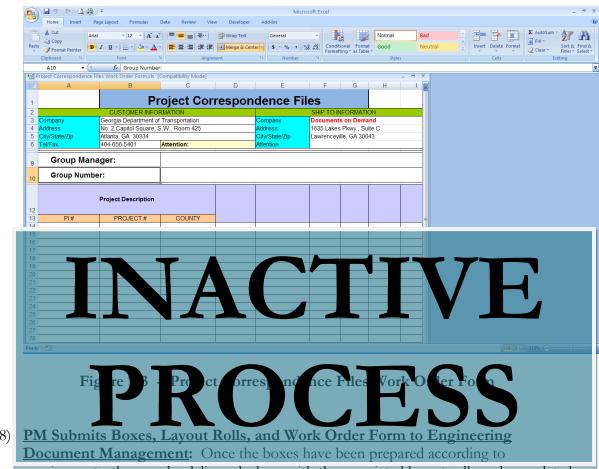
NOTE #1: If multiple file folders are required for a particular document type, please insert a Lead Sheet corresponding to the document type in EACH folder for clarification purposes for the scapping yender.



with the Transfer Form at the front, interlock the top flaps of the box. The bottom interlocked flaps MUST BE TAPED.

NOTE: For administrative reasons, please email the completed transfer forms to the Preconstruction Engineering Document Management Manager.

7) PM Downloads and Completes Work Order Form: The Work Order Form (See Figure 7-3) can be downloaded from the Design Policy & Support "Downloads" page. Make sure and download the Work Order Form under the Project Correspondence Files section of the "Downloads" web page.

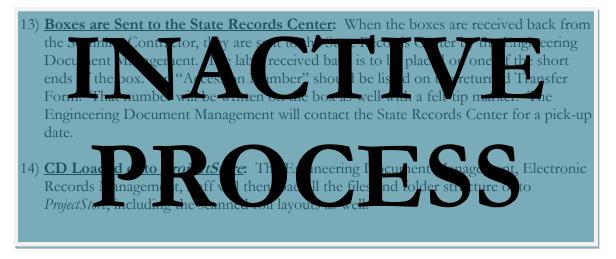


requirements, they can be delivered, along with the associated layout rolls and completed Work Order Form, to the Imaging Technician in the Engineering Document Management.

- 9) Engineering Document Management Performs QA: The Engineering Document Management will perform a brief QA of the submitted material to insure it meets all specified requirements. If not, all material will be returned to the Project Manager for correction and resubmittal.
- 10) Engineering Document Management Submits Transfer Form to the GDOT Records Management Officer: While the files are out to be scanned, the Transfer Form will be checked by the Engineering Document Management for accuracy, it will then be scanned, renamed to the correct naming convention (PCF_date.pdf i.e.: PCF_082107.pdf), placed in the Project Correspondence Files Transfer Forms folder on RD14, and then sent by email to the Project Manager for their records. Once it is sent to the GDOT Records Management Officer, it will be processed and the resulting labels, etc. from the State Record Center will be sent back to the Engineering Document Management for use in submitting the files.
- 11) **Boxes Sent to Scanning Contractor:** Once all files have been boxed and verified as correct, they are sent out by the Engineering Document Management with the standard Work Order Form to the Scanning Contractor.

12) Scanning Contractor Returns Boxes and CD/DVD: The Scanning Contractor will scan all project correspondence files. Once scanned, the boxes will be reassembled by the Scanning Contractor as closely as possible as to the way they were received. All scanned files will be placed on a CD/DVD by Project PI Number and in a folder structure corresponding to the folder structure on *ProjectStore* shown below (See Figure 9-4). Multiple projects may be placed on the CD/DVD, but ALL Project PI Numbers MUST be listed on the label of the CD/DVD.

<u>Filenaming Convention:</u> Within each folder will typically be ONE multi-page PDF file. This file will contain all the documents scanned for that document type. The filename of each file will correspond to the Project PI Number and document type as shown in **Figure 7-4**.



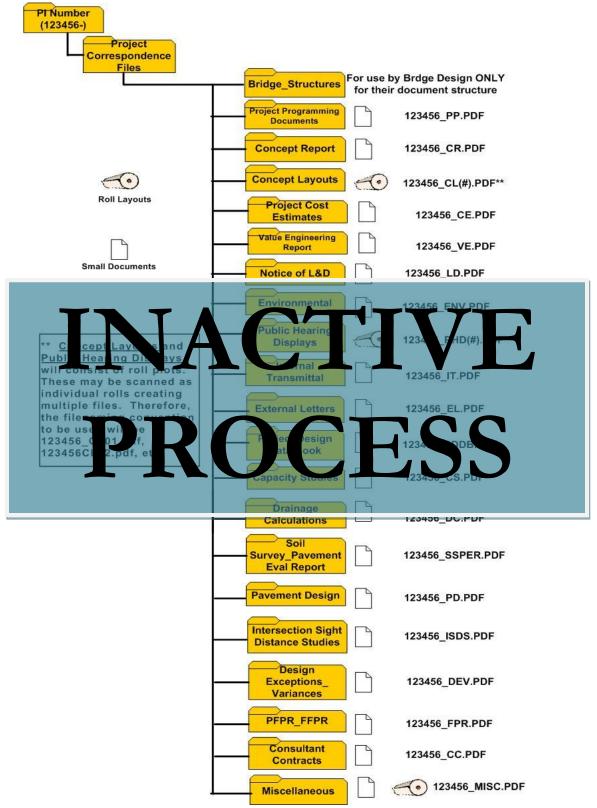


Figure 7-4 - ProjectStore Folder Structure Diagram

(**NOTE**: The "Environmental" folder may contain other environmental-related documents.)

SECTION 8 – ENVIRONMENTAL DOCUMENTS PROCESS

In an effort to provide easier access to documents produced within the Environmental section of the Office of Environment/Location, the following process has been established for storing some of these documents in electronic format.

- 1) OEL Produces the Electronic Document: The filenames of the files created must begin with the PI Number of the project followed by an underscore, and then any text desired. (ie: 123456_EnvAssess.pdf, 0000345_GreenSheet.pdf, etc.) Including the PI Number will assist in future scripting efforts to automate the transfer of files.
- 2) OEL Places File(s) on Server: The documents that are ready for transfer to their electronic storage location are placed on the server in the standard transfer folders. The folders are located on PCCOMMON (\\gdot.ad.local\\gdot\\Preconstruction\\RoadDesign\\PCCOMMON\\)) under a main folder named "OEL Work Product Transfers". The files are placed in the appropriate subfolder (Design_ArchiveStore or ProjectStore) based on their desired destination.
- 3) Design Policy & Support (Engineering Document Management) Monitors
 Folders: The Engineering Document Management staff in Design Policy & Support
 will monitor the folders and, on the last working day of the week, will transfer any files
 in the folders to their appropriate destinations. Once transferred, the files will be
 removed from the PCCOMMON folders. (NOTE: If the project does not yet exist in
 any of these locations, the Design Policy & Support, Engineering Document
 Management staff, will create the PI Folder and the associated "Environmental" sub-folder
 for that project and transfer the files.)

The folder structures are shown in Figure 1-1 in Section 1 (General) under Plans Repositories Folder/Directories/Filename Structures for the ArchiveStore location, as well as in Figure 7-4 in Section 7 (Project Correspondence Files Process) for the ProjectStore location. In all cases, the OEL documents will be stored in the "Environmental" folder.

SECTION 9 – ELECTRONIC PLANS REPRODUCTION PROCESS

In addition to the standard and traditional hard-copy plans reproduction process, an automated statewide plans reproduction process also exists.



Figure 9-1 - Electronic Plans Reproduction Process Diagram

- 1) <u>Designer Receives or Creates Scanned Images:</u> The Designer may receive sheet file images from a Consultant or may create them by scanning hard-copy sheets. If creating the files, it is recommended to scan them locally as a backup. All images shall be created according to standards for electronic file formats and filenames in <u>Section 1</u>.
- 2) **Designer Copies Images to Standard Folder:** From wherever the files are created or stored, they must be copied to a standard folder for reproduction and named correctly.

Folder Creation:

The location of the standard folders for reproduction requests is as follows: \\gdot.ad.local\gdot\Preconstruction\RoadDesign\PCCOMMON\Printroom Request Images\

Under this main folder, there is a sub-folder for each office. Under the appropriate office sub-folder, the Designer must create a Project folder for the project to be printed according to the standard of **PI Number, underbar, the date that the images are scanned**. (See **Figure 10-2** below) Including the date will help distinguish previous reproduction requests for a project from a current one for the same project if the situation should occur. Once the folder is created, the images are to be copied to the folder.

It is the responsibility of the Designer to first verify that the plans to be scanned are arranged in the correct order. The plans must then be scanned in sequential order (in the order to be printed).

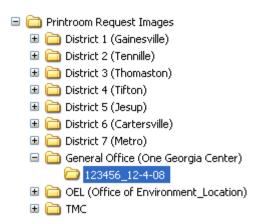


Figure 9-2 - Electronic Plans Reproduction Process Folder Structure Diagram

3) <u>Designer Sends Standard Work Order Form by Email:</u> The standard Work Order Form (See Figure 9-3 below) can be obtained from the Design Policy & Support Internal Web Page under the Downloads page (http://topps/homeoffs/preconstruction/roaddesign/downloads.shtml - Click the *Download* link by the file labeled as *GDOT Internal Printing Work Order Form*).

The form allows for saving, printing, and emailing directly from the form. Please see the information below for automation and use.

Print Roon	n Work Order For	m	Submit by Email	Print Form
Date Ordered:				~~
Date Needed:			Georgia Department	of Transportation
Ordered By:				nent of Transportation Print Room Services OOW. Peachtree Street
Name:				Floor 1 Atlanta, GA
Phone Number:				30308 Phone: 404-347-0600
Project Number:			Email: p	orintroom@dot.ga.gov
PI Number:				
County:				
Office:				
Type of Request:				
□ PFPR / FFPR	Preliminary/Final Field	l Plan Review	Prints / Reviews	Store
□ UOC / Bridge As-Built	t Use on Construction/B	ridge As-Built Revi	isions Distribution / Pi	rocessing
☐ General Printing	Includes Final Plans, A	mendments, Etc.	Prints Only	
	Source	e of Plans:		
☐ Hard-Copy ☐ Previous Submission (General Prints Only)				
RWStore (R			WStore Prints)	
□ ArchiveStore (Ar			rchiveStore Prints - see options below)	
Print images in: ☐	Construction Folder Shee	ts: ALL		
	Revision Folder Shee	ts: ALL		
□ PCCOMMON\Printroc	om Request Images\	•		(General Printing)
□ RD14\Use On Construction\			(Use on Construction R	levisions)
	Size/Num	ber of Prints:		
	Half-Size	Prints	Number of Sets	:
1-1 man m	ly to be requested for: (1) Final Pla) <u>Limited</u> Utility submissions (at ti			istruction,
	Full-Size		Number of Sets	: [
Comments/Additiona	al Information:			
				Revised 4/16/10

Figure 9-3 - GDOT Standard Internal Work Order Form

- 3) <u>Select the type of printing request</u>: (1) PFPR/FFPR, (2) Use on Construction Revisions/Bridge As-Built Revision, (3) General Printing
- 4) <u>Select the source of your plans</u>: Hard-copy, Previous Submission, ArchiveStore / RWStore, PCCOMMON (complete text field with correct Office folder and PI-Date

- sub-folder see tool tip on form for example), RD14 (complete text field with actual PI-Date folder name see tool tip on form for example)
- 5) Specify the desired number of sets of full or half-size plans in the next section.
- 6) <u>Include any additional information</u> or comments in the box at the bottom.

To save the form:

Click on the diskette icon in the toolbar or select File=>Save.

To print:

Click on the **Print Form** button in the top right corner of the form. It will automatically open the Windows printing dialog to select your printer, etc.

To email:

Click on the **Submit by Email** button in the top right corner of the form and the form will be sent to the Print Room email address as documented below.

- ✓ The *Select Email Client* dialog will appear and just make sure the first option of **Desktop Email Application** is selected and click on **OK**.
- ✓ <u>ONE TIME TASK</u>: If the *Send Data File* dialog appears, click the **Don't Show Again** checkbox and then click on **Send Data File**. (The dialog will not appear again.)
- A new Outlook email message will be automatically opened with the completed PDF Work Order Form attached, the Print Room email address already in place, and a standard Subject inserted. If you want to edit the subject line to include the project number, etc. you can do so and then click on **Send**.
- ✓ ONE TIME TASK: If the *Email Confirmation* dialog appears, click the **Don't**Show Again checkbox and then click on Close. (The dialog will not appear again.)

Automation Features:

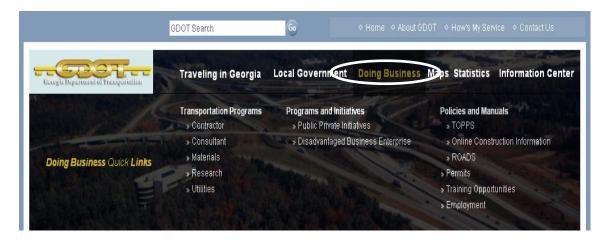
- Auto-entry text: If you do not save the form and open the same downloaded form, previously entered information will automatically appear when typing in text to save time. Basically, it has an auto-entry text feature in the form.
- Calendar Date Fields: The date fields are now calendars that allow for easy entry of submitted and needed dates.
- 4) <u>Images are Printed:</u> The images will be printed by the Print Room Staff according to the directions and specifications in the Work Order Form.
- 5) **Designer Will Be Notified Upon Completion of Printing:** The Print Room Staff will contact the Designer to let the know printing has been completed and the plans are ready for pick-up, shipping, or distribution. The Print Room staff is NOT responsible

for attaching letters for distribution. The Designer (or designee) must attach the letters to the plans.

SECTION 10 – ELECTRONIC PLANS RESEARCH PROCESS

Over the past five years, the Department has successfully transitioned from a hard-copy plans environment to an electronic-plans archival environment for Construction Plans, ROW Plans, and As-Built Plans. The transition now enables internal and external customers to search and retrieve plans electronically and from their own locations. Three options exist for searching and retrieving plans.

- 1) First, go to the main GDOT Homepage at www.dot.ga.gov
- 2) From the main section, select *Doing Business*.



3) From the Quick Links menu on the right side of the screen, select Historical Plans Research.



4) From the **Historical Plans Research** web page, you can access all of the options for performing research documented below.

TRANSPORTATION EXPLORER (TREX)

TREX provides you with an easy to use map and search capability to locate project plans. Though the search functions are a bit limited, the graphical interface makes it easy to use if you know the exact location for which you are looking.

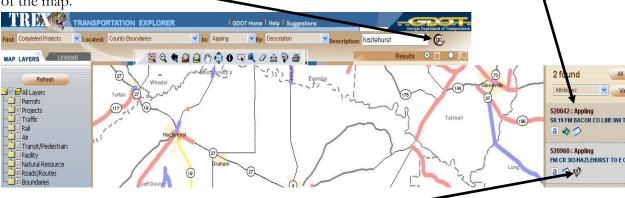
First, make sure the "Find" parameter is set to "Projects" or "Completed Projects" based on the type of project for which you are searching.

- <u>Projects</u> Projects that have been LET to Construction and are still considered "Under Construction" (Final Acceptance has not been received)
- Completed Projects Projects for which Final Acceptance has been received

Then select your <u>searching options</u>: County, PI Number, Project Number (any part of or the whole project number), Project Description (any part of the project description you may know).



Then, simply click "Go"... and any matching projects will be returned on the right side of the map.



CLICK ON A "PLANS" ICON "A" (ARCHIVESTORE) IF PRESENT TO BEGIN REVIEWING THE PLAN SHEETS.

ELECTRONIC PLANS SEARCH APPLICATION

This application provides extended searching capabilities that allow you to enter any pieces of information you may know about the location of the project for which you are searching and it will return all projects meeting that criteria. From there, you can narrow your search until you find the plans for which you are looking.

First, enter the information you know about the project in question in the screen below and then click the **Submit** button at the bottom of the screen.

Road Detail Plan Search Project Accounting No: ROW Accounting No: County: Select Project ID: Project Description: Project Type: Select Route No: Work Type: Select Road Segment: Plans Completed Date: Begin Mile Point From End Mile Point Τо Document Type: Select No Sheet Type Submit Reset

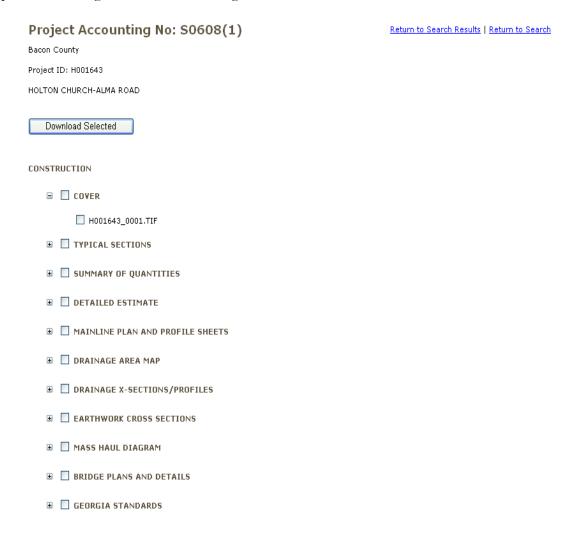
Please note that any revisions will not be available through searching this database. To view any possible revisions, you must either search through <u>TREX</u> (internal or external) or navigate to the actual folder (ArchiveStore or DesignStore) through Windows Explorer (internal only).

Next, if there are any matching projects, they will be listed in a new window below the search screen.

Road Detail Plan Search Project Accounting No: 608 ROW Accounting No: County: Project ID: Project Description: Project Type: Select Route No: Work Type: Select Road Segment: Plans Completed Date: То Document Type: Select No Sheet Type Submit Reset Please note that any revisions will not be available through searching this database. To view any possible revisions, you must either search through <u>TREX</u> (internal or external) or navigate to the actual folder (ArchiveStore or DesignStore) through Windows Explorer (internal only). Search Results 2 Road Design Plans matching your search were found PROJECT ACCOUNTING NO. PROJECT ID HOLTON CHURCH-ALMA ROAD S0608(1) H001643 CONSTRUCTION H001644 CONSTRUCTION DIXIE SCHOOL-ALMA ROAD S-0608(2) Bacon

Once you select a project from the links in the first column, the following screen will be displayed, allowing you to choose the sheets you would like to download.

Click on the "+" next to the sheet types to reveal the actual sheets for that sheet type. Once you have selected the sheets you desire, click the **Download Selected** button to download a Zip file containing the TIF or PDF images of the selected sheets.



PLANS FILE ROOM

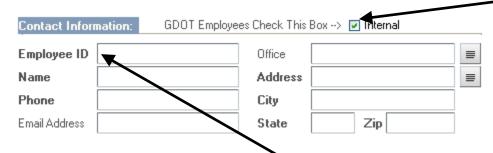
If you have looked and not been able to locate the plans for which you are searching or if you would like for us to do the research for you, simply complete the form at the bottom of the same web page with any of the information you may know, and the GDOT research staff will gather the desired plans for you!

USING THE FORM - CONTACT INFORMATION

The top portion of the form contains the requestor Contact Information. All fields in bold must be completed.

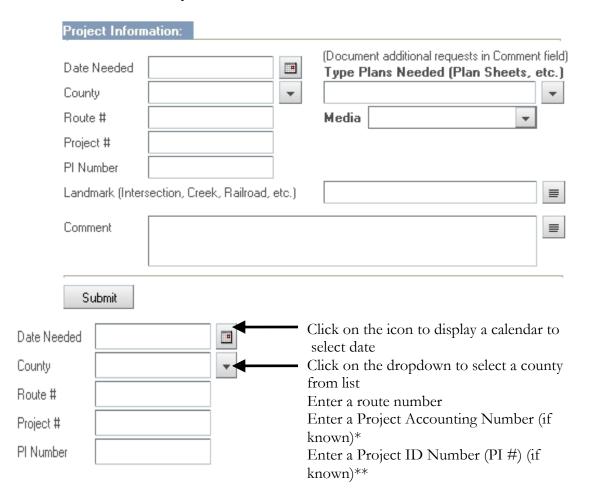


If you are a GDOT Employee, you can simply click on the checkbox at the top of the form.



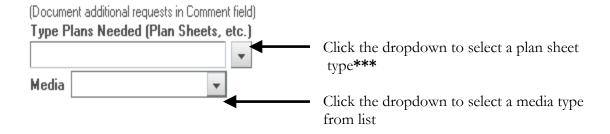
The form will change to display an **Employee ID** field as shown above. Once the ID is entered and the user presses **Return**, all the employee's information will be filled-in automatically.

USING THE FORM - PROJECT INFORMATION



* Example: FR-165-1(409), TSAP-120(1), etc.

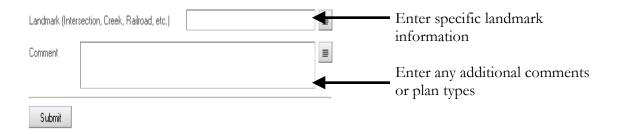
** Example: 0000365, 123456-, etc.



*** You can only select <u>ONE</u> plan type from the dropdown, but you can enter all additional plan types you need in the **Comment** field at the bottom of the form.

The options available from the Media dropdown are show below along with the prices for each type media.

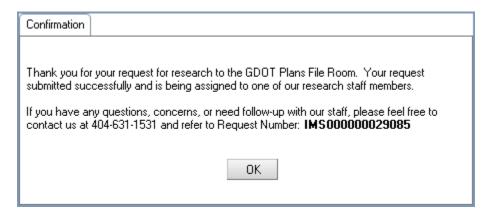
NOTE: The maximum number of sheets that can be requested to be sent by email is 10. If you need more than 10 sheets to complete your request, please select another media type under the **Media** dropdown.



Once you have completed the form, click on the **Submit** button to submit your request.

REQUEST SUBMISSION CONFIRMATION

You will immediately receive a confirmation message as shown below with a request number. If you need to follow-up on this request, please refer to the request number.



(Based on the type of plans requested, the contact information may vary.)

RESEARCHER EMAIL

You will also receive a system email that will contain the contact information of the specific research staff assigned to your request. If you have any attachments you would like to send in order to provide clarification, you can reply to the email address of the specific person in the body of the system email and attach your information.

APPENDIX A – PLAN REVISION PROCEDURES FLOWCHART

Plan Revision Procedures Flowchart

